autonomy, wherein the plurality of program modules are each configured to handle a common computer task that includes conducting negotiations in an electronic commerce application, and wherein, based upon an objective criteria, at least one selected program module from the plurality of program modules is selected to handle the computer task.

C3

76. (Once Amended) The apparatus of claim 64 [75], wherein the plurality of program modules includes a semi-autonomous program module, a fully-autonomous program module, and a fully-dependent program module.

C4

77. (Once Amended) The apparatus of claim 64 [75], wherein the objective criteria includes a risk that a dispatched agent is subjected to in negotiations.

REMARKS

This paper is submitted in reply to the Office Action dated April 1, 1999, within the three month period for a response. Reconsideration and allowance of all pending claims are respectfully requested.

In the subject Office Action, claims 30-32 and 36-48 were rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Moreover, claims 30, 36-37 and 39-47 were rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 5,655,081 to Bonnell et al. Moreover, several objections as to formal matters were made for the Specification and Declaration.

Applicants respectfully traverse the Examiner's rejections to the extent that they are maintained.

As an initial matter, Applicants note that the Examiner did not consider the claims added by the second Preliminary Amendment filed on March 24, 1999. Moreover, it does not appear that the Examiner has yet considered the art submitted in the Supplemental Information Disclosure Statement filed in connection with the aforementioned Preliminary Amendment. Applicants have made the above amendments and remarks below to address the claims added by

this Preliminary Amendment (specifically, claims 49-80) in addition to those claims initially considered by the Examiner. Moreover, Applicants respectfully submit that they aforementioned Supplemental Information Disclosure Statement was filed prior to issuance of the instant Office Action, and as such, should be considered by the Examiner with no payment of fees in accordance with 37 C.F.R. 1.97(b). Applicants therefore respectfully request that the Examiner return the initialed copies of the 1449 forms enclosed with the aforementioned Statement.

Applicants have also noted that the Examiner did not consider a significant number of the references cited in the Information Disclosure Statement filed on August 28, 1998, stating that copies of the references were not enclosed. However, it is Applicants understanding that copies of those references were not required to be submitted pursuant 37 CFR 1.98(d), since the instant application is a divisional application and the references were originally cited in a parent application. Applicants therefore respectfully submit that the Examiner is obligated to consider these references, and Applicants would appreciate if the Examiner would return initialed copies of the 1449 forms indicating that the references were considered with the next Office communication. Clean copies of the originally-filed 1449 forms are enclosed herewith for the Examiner's convenience.

Applicants have now canceled claims 46, 61 and 75 without prejudice, and amended claims 30, 47-49, 62-64 and 76-77. No new matter is added by the amendments, as the subject matter thereof is fully supported in the Specification, Drawings and Claims as originally filed. Applicants respectfully submit that the above amendments and the remarks presented below are sufficient to traverse the Examiner's rejections, and as such, the application is now in condition for allowance.

Applicants will now address each of the points raised by the Examiner in the order in which they appear in the Office Action.

Informal Matters

Turning to the subject Office Action, the Examiner objected to the Declaration as being defective for failing to provide original signatures. However, it is Applicants' understanding that the filing of a photocopy of an Oath or Declaration is proper under 37 C.F.R. § 1.63(d) and

1.53(f) for a divisional patent application. Accordingly, withdrawal of the objection is respectfully requested.

In addition, the Examiner objected to the Disclosure for failing to state in the Specification that the application is a divisional of another application. However, the Examiner will note that the claim to priority was added to the application by way of amendment in the Preliminary Amendment filed concurrently with the Application on June 19, 1998. Withdrawal of this objection is therefore also respectfully requested.

Statutory Subject Matter Rejection

Next, the Examiner rejected claims 30-32 and 36-48 as being directed to non-statutory subject matter. In particular, the Examiner asserts that the claims are not limited to practical applications of the technical arts, as they disclose no manipulation of data representing physical objects or activities, or any independent physical acts being formed by the invention. The Examiner further asserts that a computer program product embodied on a signal bearing media is not statutory because the term "signal bearing media" is broader than a "computer readable medium", which the Examiner asserts corresponds to a physical object that, when placed in a computer, causes a computer to operate in a particular fashion.

Applicants respectfully traverse the Examiner's Section 101 rejection, as it appears that the Examiner has misapplied the law in statutory subject matter to somehow require some manipulation of physical objects to define a statutory invention. It is Applicants' understanding that both the Patent Office's Examination Guidelines for Computer-Related Inventions, as well as current case law as exemplified by State Street Bank & Trust v. Signature Financial Group, 47 USPQ2d 1596 (Fed. Cir. 1998) and AT&T Corp. v. Excel Communications, Inc., 50 USPQ2d 1447 (Fed. Cir. 1999), merely requires that an invention be applied to produce a "useful, concrete and tangible result." State Street Bank at 1602. On this basis, the claims are clearly statutory.

Claim 30, in particular, recites a program that performs a computer task using an intelligent agent. The intelligent agent includes at least one of a plurality of program modules, and at least one of the program modules is selected to handle a computer task based upon an objective criteria. Such selection of different program modules modifies the function of the

intelligent agent to operate in a different way in handling the task. Such an operation is not merely a manipulation of abstract ideas or mathematical formulas, but rather a useful, concrete, and tangible result is obtained by virtue of the optimization of the operation of the intelligent agent in performing the task. This practical utility of the claimed invention is all that is necessary to define a statutory invention.

Also, the Examiner asserts that a "signal bearing media" encompasses other than physical computer readable media (presumably floppy disks and the like). It appears that the Examiner is attempting to focus on which specific category the claim falls in, rather than the overall utility recited in the claim. This reasoning, however, is not proper under State Street Bank. Id. Regardless, Applicants have specifically defined various examples of signal bearing media, including recordable-type media, such as floppy disks, hard disk drives and CD-ROM's, but also transmission-type media, such as digital and analog communication links (see page 22 of the Application). It is Applicants' understanding that transmission-type media are recognized as statutory. In fact, a computer program embodied on a carrier wave is provided as an illustration of a statutory invention in the examples appended to the Patent Office's Guidelines (see, for example, claim 13 of the Automated Manufacturing Plant example). Therefore, the Examiner's requirement that the claim be limited to recordable-type media is unsupported in the law.

Accordingly, Applicants respectfully submit that the claims are directed to statutory subject matter, and withdrawal of the Examiner's rejection is therefore earnestly solicited.

Art-Based Rejection

Next, in the subject Office Action, claims 30, 36-37 and 39-47 were rejected under 35 U.S.C. § 102(a) as being anticipated by Bonnell et al.

First, with respect to independent claim 30, this claim (as amended) now recites a program including an intelligent agent including at least one of a plurality of program modules having varied degrees of autonomy. The plurality of program modules are each configured to handle a common computer task that includes conducting negotiations. Based upon an objective criteria, at least one program module is selected to handle the computer task.

Claim 1 as amended is similar in scope to claim 46, which the Examiner claims is anticipated by Bonnell et al. The Examiner in particular argues that the limitation regarding the use in electronic commerce is merely a field of use statement, rather than an additional limiting feature of the claim. However, claim 30, as well as claim 46, both recite that the program modules of an intelligent agent are configured to conduct negotiations in an electronic commerce application. This recitation positively defines the operational characteristics of the modules, and is more than simply a field of use.

Moreover, this feature is not disclosed or suggested by Bonnell et al. Bonnell et al. is instead directed to a network management system that loads various modules based upon the types of network resources that are being managed by a particular agent in a network management system. The reference is utterly silent as to any electronic commerce application, or to the use of an intelligent agent in conducting negotiations. Furthermore, the reference is silent as to granting various degrees of autonomy to an intelligent agent, as is also recited in claim 30. For this reason, Bonnell et al. cannot be read to anticipate claim 30. Withdrawal of the rejection of claim 30 is therefore respectfully requested.

Moreover, claim 30 is non-obvious over Bonnell et al. given that there is no motivation in the art to modify the network management system of Bonnell et al. to support electronic negotiations, or to vary the operation of an intelligent agent by using different program modules having varying degrees of autonomy. The claimed invention, however, provides a unique and unexpected advantage in that an intelligent agent may be configured to conduct a common task (performing a negotiation) in different manners (with different degrees of autonomy) in different situations. As a consequence, the operation of the agent may be optimized for different situations. Applicants therefore respectfully submit that claim 30 is also non-obvious over Bonnell et al. Reconsideration and allowance of claim 30, as well as claims 31-45 and 47-48 which depend therefrom, are respectfully requested.

Next, with respect to independent claims 49 and 64, each of these claims have similarly been amended to recite that the plurality of program modules for an intelligent agent are configured to handle a common computer task that includes conducting negotiations in an

electronic commerce application, with the various program modules having varied degrees of autonomy. As discussed above in connection with claim 30, the use of different program modules having varied degrees of autonomy in an intelligent agent for the purpose of conducting negotiations is not disclosed or suggested by Bonnell et al. Accordingly, reconsideration and allowance of claims 49 and 64, as well as claims 50-60, 62-63, 65-74 and 76-77 which depend therefrom, are respectfully requested.

As to claims 78-80, which have not been rejected based upon the prior art, Applicants respectfully submit that these claims are also novel and non-obvious over Bonnell et al., as Bonnell et al. fails to disclose or suggest any method of handling a computer task where the selection of a program module for use in an intelligent agent is based upon the risk presented in a remote computer system. Accordingly, consideration and allowance of claims 78-80 are also respectfully requested.

In summary, Applicants respectfully submit that all pending claims are novel and non-obvious over the prior art of record. Reconsideration and allowance of all pending claims are therefore respectfully requested.

If there are any questions regarding this paper, or which might otherwise further this case onto allowance, please contact the undersigned at (513)241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

1 JULY 1999
Date

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SUBSTITUTE FORM PTO-1449 (MODIFIED)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. IBM/04B (RO996-052L)	SERIAL NO. 09/100,595
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) (37 CFR 1.98(b))		APPLICANT Joseph Phillip Bigus et al.	
		FILING DATE June 19, 1998	GROUP 2762

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
WLG	A.A	4 9 1 4 5 8 5	04/03/90	Packard et al.	364	200	05/23/88
	A.B	5 0 7 3 8 9 0	12/17/91	Peter J. Danielsen	370	58.2	12/30/88
	A.C	5 1 1 7 4 9 6	05/26/92	Stearns et al.	395	700	05/23/88
	A.D	5 1 5 5 7 6 3	10/13/92	Bigus et al.	379	113	12/11/90
	A.E	5 2 2 6 1 7 6	07/06/93	Westaway et al.	395	800	08/20/90
	A.F	5 2 3 5 6 4 2	08/10/93	Wobber et al.	380	25	07/21/92
	A.G	5 2 4 1 6 2 1	08/31/93	Ronald G. Smart	395	51	06/26/91
	A.H	5 2 7 6 7 6 8	01/04/94	James L. Bander	395	10	03/20/91
	A.I	5 3 0 1 3 2 0	04/05/94	McAtee et al.	395	650	06/28/91
	A.J	5 3 1 7 6 8 8	05/31/94	Ralph T. Watson et al.	395	161	02/26/93
	A.K	5 3 2 5 5 2 8	06/28/94	Johannes Klein	395	650	04/22/93

FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION (YES/NO)
	A.L	WO9321586	10/28/93				
	A.M	WO9500907	01/05/95				
	A.N	WO9502217	01/19/95				
	A.O	WO9511560	04/27/95				
	A.P	WO9515635	06/08/95				
	A.Q	2061117	02/12/92	Application for Canadian Patent			

RECEIVED
JUL 13 1999
Group 2700

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	A.R	Gilbert et al., "IBM Intelligent Agents", http://www.networking.ibm.com/iag/iagwp1.htm1, (1996).
	A.S	"Commercial Expert System Shells", http://www.ioe.ac.uk/hgm/expert3.html, (1997).
	A.T	"Commercial Software Packages for Neural Network Simulation", ftp://ftp.sas.com/pub/neural/FAQ6.html, (1997).

EXAMINER	DATE CONSIDERED
WLG	SEP 24 99

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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	B.A	5 3 2 9 6 2 6	07/12/94	Klein et al.	395	375	10/23/90
	B.B	5 3 6 7 4 5 4	11/22/94	Kawamoto et al.	364	419.20	06/25/93
	B.C	5 3 6 7 6 3 5	11/22/94	Bauer et al.	395	200	08/29/91
	B.D	5 3 7 1 8 8 9	12/06/94	Johannes Klein	395	650	04/22/93
	B.E	5 3 9 2 3 4 5	02/21/95	Mary R. Otto	379	265	04/30/93
	B.F	5 3 9 8 0 1 2	03/14/95	Jeffrey H. Derby et al.	340	825.03	11/24/92
	B.G	5 4 0 8 4 7 0	04/18/95	Lewis V. Rothrock et al.	370	62	10/14/93
	B.H	5 4 2 1 0 1 3	05/30/95	Curtis A. Smith	395	650	07/08/93
	B.I	5 4 2 3 0 4 3	06/06/95	Fitzpatrick et al.	395	700	01/21/94
	B.J	5 4 6 5 2 8 6	11/07/95	Clare et al.	379	34	05/24/94
	B.K	5 4 6 9 5 6 2	11/21/95	Christian D. Saether	395	182.18	06/26/92

FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION (YES/NO)
	B.L	EP0519109A1	12/23/92	European			Yes
	B.M	EP0589249A2	03/30/94	European			Yes
	B.N	EP0598534A1	05/25/94	European			Yes
	B.O	EP0611210A1	08/17/94	European			Yes
	B.P	JP3195141	1991	Japan			Yes
	B.Q	JP4157944	1992	Japan			Yes

RECEIVED
JUL 13 1999
Group 2700

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	B.R	A.D. Kwok et al., "A Development System for Intelligent Agent Manufacturing Software", Integrated Manufacturing Systems, 1994, Vol. 5 No. 4/5, pp.64-76.
	B.S	Barbara Hayes-Roth, "An architecture for adaptive intelligent systems", Artificial Intelligence, January 1995, Volume 72, Numbers 1-2, pp. 329-365.
	B.T	Siegfried R. Bocionek, "Agent systems that negotiate and learn", International Journal of Human-Computer Studies, March 1995, Volume 42, No. 3, pp. 265-288.

EXAMINER	DATE CONSIDERED
	24sep99

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U.S. PATENT DOCUMENTS

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	C.A	5 4 8 1 7 1 5	01/02/96	Hamilton et al.	395	700	12/15/93
	C.B	5 4 8 1 6 9 9	01/02/96	Christian D. Saether	395	182.13	03/23/95
	C.C	5 6 0 3 0 3 1	02/11/97	White et al.	395	683	07/08/93
	C.D						
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FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION (YES/NO)
	~~C.L~~	~~JP4256101~~	~~1992~~	~~Japan~~			~~No~~
	~~C.M~~	~~JP5324009~~	~~1993~~	~~Japan~~			~~No~~
	C.N	JP6175944	1994	Japan			Yes
	C.O						
	C.P						
	C.Q						

RECEIVED JUL 13 1999 Group 2700

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	C.R	Darrell Woelk et al., "Uncovering the next generation of active objects", OBJECT magazine, July/August 1995, pp. 32-40.
	C.S	Jan Ozer, "Totally Streaming Multimedia", CD-ROM Professional, August 1996, Volume 9 No. 8, pp. 54-66.
	C.T	Barbara Hayes-Roth et al., "A Domain-Specific Software Architecture for Adaptive Intelligent Systems", IEEE Transactions on Software Engineering, April 1995, Vol. 21, No. 4, pp. 288-301.

EXAMINER	DATE CONSIDERED
	24 SEP 99

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	D.L						
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	D.P						
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OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	D.R	Glenn R. Stearns, "Agents and the HP NewWave Application Program Interface", Hewlett-Packard Journal, August 1989, pp. 32-37.
	D.S	T.J. Grant, "A review of Multi-Agent Systems techniques, with application to Columbus User Support Organisation", Future Generation Computer Systems, May 1992, Volume 7, Number 4, pp. 413-437.
	D.T	Mufit Ozden, "Intelligent Objects in Simulation", ORSA Journal on Computing, Fall 1994, Vol. 6, No. 4, pp. 329-341.

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WLG	24SEP99

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	E.L						
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	E.O						
	E.P						
	E.Q						

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OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	E.R	Peter Gibbons et al., "Intelligent Agents in Multi-Media Systems", Sharp Technical Journal, December 1994, Volume 60, pp. 11-14.
	E.S	Cristano Castelfranchi, "Guarantees for Autonomy in Cognitive Agent Architecture", Proceedings of ECAI-94 Workshop on Agent Theories, Architectures, and Languages, Amsterdam, The Netherlands, August 8-9, 1994, pp. 56-70.
	E.T	Devindra Weerasooriya et al., "Design of a Concurrent Agent-Oriented Language", Proceedings of ECAI-94 Workshop on Agent Theories, Architectures, and Languages, Amsterdam, The Netherlands, August 8-9, 1994, pp. 386-401.

EXAMINER	DATE CONSIDERED
	24SEP99

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OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	F.R	Agostino Poggi, "DAISY: an Object-Oriented System for Distributed Artificial Intelligence", Proceedings of ECAI-94 Workshop on Agent Theories, Architectures, and Languages, Amsterdam, The Netherlands, August 8-9, 1994, pp. 341-354.
	F.S	David Kinny et al., "Planned Team Activity", 4th European Workshop on Modelling Autonomous Agents in a Multi-Agent World, MAAMAW '92, S. Martino al Cimino, Italy, July 29-31, 1992, pp. 227-256.
	F.T	Stephen Marsh, "Trust in Distributed Artificial Intelligence", 4th European Workshop on Modelling Autonomous Agents in a Multi-Agent World, MAAMAW '92, S. Martino al Cimino, Italy, July 29-31, 1992, pp. 94-112.

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	G.O						
	G.P						
	G.Q						

RECEIVED JUL 13 1999 Group 2700

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	G.R	Beerud Sheth et al., "Evolving Agents For Personalized Information Filtering", Proceedings of the Ninth Conference on Artificial Intelligence for Applications, Orlando, Florida, March 1-5, 1993, pp. 345-352.
	G.S	Tremaine A.O. Cornish et al., "What Has Mill to Say about Data Mining", Proceedings of The 11th Conference on Artificial Intelligence for Applications, Los Angeles, California, February 20-23, 1995, pp. 347-353.
	G.T	Siegfried Bocionek, "Software Secretaries: Learning and Negotiating Personal Assistants for the Daily Office Work", Proceedings of IEEE Int'l. Conf. on Systems, Man and Cybernetics, San Antonio, Texas, Oct. 2-5, 1994, Vol. 1, pp. 7-12.

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FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION (YES/NO)
	H.L						
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	H.P						
	H.Q						

RECEIVED JUL 13 1999 Group 2700

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	H.R	Enrique D. Espinosa, "Intelligent Classroom Information Agent Multimedia Lab & Visual Guides for Datastructures II", Proceedings of the Int'l. Conf. on Multimedia Computing and Systems, Washington, D.C., May 15-18, 1995, pp. 302-305.
	H.S	Rolf Pfeifer et al., "Distributed Adaptive Control: A Paradigm for Designing Autonomous Agents", Toward a Practice of Autonomous Systems, Proceedings of the First European Conf. on Artificial Life, Paris, France, Dec. 1991, pp. 21-30.
	H.T	Alison Cawsey et al., "A Comparison of Architectures for Autonomous Multi-Agent Communication", Proceedings of the 10th European Conference on Artificial Intelligence, Vienna, Austria, August 3-7, 1992, pp. 249-251.

EXAMINER	DATE CONSIDERED
	24SEP99

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SUBSTITUTE FORM PTO-1449 (MODIFIED)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. IBM/04B (RO996-052L)	SERIAL NO. 09/100,595
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) (37 CFR 1.98(b))		APPLICANT Joseph Phillip Bigus et al.	
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	I.L						
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	I.O						
	I.P						
	I.Q						

RECEIVED JUL 13 1999 Group 2700

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	I.R	Paul Kearney et al., "Emergent Behaviour in a Multi-Agent Economic Situation", Proceedings of the 11th European Conference on Artificial Intelligence, Amsterdam, The Netherlands, August 8-12, 1994, pp. 284-288.
	I.S	Wayne Wobcke, "Reasoning about Action from the Perspective of Situation Semantics, Proceedings of the 6th Australian Joint Conference on Artificial Intelligence, Melbourne, Australia, November 16-19, 1993, pp. 71-76.
	I.T	Gunilla A. Sundstrom et al., "Cooperative Human-Computer Decision Making: An Experiment and Some Design Implications", Proceedings of the Human Factors and Ergonomics Society 38th Annual Meeting, Nashville, Tennessee, October 24-28, 1994, pp. 220-224.

EXAMINER	DATE CONSIDERED
	24SEP99

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	J.A						
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	J.L						
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	J.N						
	J.O						
	J.P						
	J.Q						

RECEIVED JUL 13 1999 Group 2700

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	J.R	T. Moody, "AT&T Personalink (SM) - A Public Network for Smart Agent Pics", IEE Colloquium on Roaming with Data, London, UK, March 6, 1995, Digest No. 1995/046.
	J.S	Lech Polkowski et al., "Introducing Rough Mereological Controllers: Rough Quality Control", Proceedings of RSSC '94 3rd Int'l. Workshop on Rough Sets and Soft Computing, San Jose, California, Nov. 10-12, 1994.
	J.T	Terence J. Parr et al., "A Language for Creating and Manipulating VRML", Symposium on the VRML '95, San Jose, California, December 14-15, 1995, pp. 123-131.

EXAMINER	DATE CONSIDERED
	24 SEP 99

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	K.A						
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	K.L						
	K.M						
	K.N						
	K.O						
	K.P						
	K.Q						

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	K.R	Joseph P. Bigus, Data Mining with Neural Networks, McGraw-Hill Publishing Company, 1996.
	K.S	David M. Chess, "Security Considerations in Agent-Based Systems", For the 1st Annual Conference on Emerging Technologies and Applications in Communications, Portland, Oregon, May 7-10, 1996.
	K.T	

EXAMINER	DATE CONSIDERED
	24SEP99

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